

Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (original) An apparatus for generating a driving voltage for a sense amplifier in a memory device, the apparatus comprising:

voltage output means for outputting a predetermined value of voltage for driving the sense amplifier to a node being used as a driving voltage node of the sense amplifier;

a first core voltage step-up means connected between a power supply and the node; and

a second core voltage step-up means connected between the power supply and the node,

wherein the first and second core voltage step-up means are turned on in sequence to elevate the voltage level of the node connected with the sense amplifier up to the level of the power supply at a first rate, and

wherein, any time after the first core voltage step-up means is initially turned on, the second core voltage step-up means is turned on to elevate the voltage level of the node up to the level of the power supply at a second rate.

2. (original) The apparatus as set forth in claim 1, wherein the first core voltage step-up means includes a first transistor, the second core voltage step-up

means includes a second transistor, the first core voltage step-up means is enabled in response to a bank active signal, and the second core voltage step-up means is enabled in response to a sense amplifier enable-signal.

3. (original) The apparatus as set forth in claim 2, wherein the first transistor is smaller-sized than the second transistor.
4. (original) The apparatus as set forth in claim 2, wherein the voltage output means are inoperative when the first core voltage step-up means is enabled.
5. (original) The apparatus as set forth in claim 1, wherein the voltage output means are arranged corresponding to each of banks in the memory device.
6. (new) The apparatus as set forth in claim 1, wherein the second rate is faster than the first rate.